



**Town of Arlington, Massachusetts**  
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## **Tri-Community Flooding Group Minutes 05/11/2010**

### **Tri-Community Meeting Minutes - 5/11/2010**

Tonight's meeting of the Tri-community Working Group for Flooding Issues was held from 6:00 - 7:10 pm at Arlington town Hall.

#### **Attending:**

Will Brownsberger  
Peter Castanino  
Elsie C. Fiore  
Roger Frymire  
Patrick Herron  
Steve Kaiser  
Owen O'Riordan  
Steve Revilak  
Catherine Daly Woodbury  
Jennifer Wright

#### **Meeting Minutes Approval**

No corrections to past meeting minutes were offered.

#### **MWRA and our July 13th Meeting**

The MWRA has offered to attend at our July 13th meeting. We will ask them to do so.

#### **Discussion of Land Use Ideas**

Cities and towns can address land use issues through community laws and bylaws. For example, given a new construction project, a community might require the developer to demonstrate that the project would generate no additional storm water runoff. This is, at best, a partial solution. Some measures need to be addressed at a regional level in order to be effective. In other words, land use issues affect the entire watershed, so they need to be addressed at the scope of the watershed. This is an area where state initiatives are desirable.

The Mystic River Steering Committee has a series of sub-committees that deal with different watershed-related issues. These sub-committees may be one way to address land use. The Mystic River Steering Committee's primary focus has been water quality, and there is some concern that they do not acknowledge the connection between flooding and water quality. Balancing flood mitigation (e.g. increasing storage capacity) and water quality requirements can be a delicate and challenging process.

Winchester's Aberjona River Flood Mitigation program is a local flood mitigation project that will "push water downstream" to neighboring communities. It may be worthwhile to add an independent oversight committee requirement to Environmental Impact Reports (EIRs). MEPA regulations may be able to address situations where local flood mitigation projects affect neighboring communities. Will Brownsberger intends to pursue the question of

whether state regulation is needed to address storm water issues.

The Craddock dam project is beginning a 27-month planning and permitting period.

There has been debate about adding a fourth pump to the Amelia Earhart dam. The DCR's capital plans do not address the cost of a fourth pump. The DCR feels that a fourth pump would be beneficial, even if only to provide redundancy for the existing three pumps. Several attendees felt that there should be a study to examine the operating protocols of the dam, and their effects on flood mitigation.

Sediment contamination has been a long-standing issue in the Alewife Brook and Mystic River areas. The DCR did some sediment testing in Alewife Brook, as part of their Alewife Greenway project. (*Question: is there any way to see the results of DCR's sediment testing?*) It would be beneficial to do sediment testing along more of Alewife Brook and Mystic River.

The group asked about the permitting and enforcement process for docks in Mystic River. During the March floods, a 25-foot section of dock broke loose and became lodged in Craddock dam. This particular dock was permitted correctly, but it's believed that many docks and piers in Mystic River are not properly permitted.

### **Outreach to homeowners and businesses in affected flooding areas**

With climate change, we will probably see an increase in the number of flooding events. Owen O'Riordan feels that we need to think about adaptive prevention techniques. For example, retrofitting basements to prevent flooding.

Elsie Fiore asked if FEMA assistance was available to residents who were victims of groundwater flooding. Catherine Daly Woodbury believed that it was possible to file claims, if the groundwater flooding was the direct result of a significant flooding event. It would be worth making a phone call to find out.

Will Brownsberger believes that FEMA has programs to assist with flood mitigation after a disaster has occurred. If done to the small number of buildings that are most prone to flooding, mitigation could be a very cost-effective measure. For example, one could reduce flood damage by raising the basement and building structure of a house. In extreme cases, FEMA may be willing to purchase properties that have been repeatedly and severely damaged by floods. Rep. Brownsberger will try to find out more about these programs.

The Massachusetts DEP does not take an active role in flooding issues. The DCR has done flood control in the past, but budget cuts have limited DCR involvement in this area. FEMA response has been good; they were very proactive in response to the March 2010 storms. USGS gauges have proven to be an invaluable source of information for analyzing the effects of flooding in the Mystic River watershed.

### **Possibility of a berm along the Alewife Brook as a flood mitigation measure.**

Around ten years ago, the MWRA proposed building a berm along Alewife Brook, then subsequently withdrew the proposal. A berm could provide relief during smaller (say 10-25 year) flood events -- those where the water level did not top the berm. During more significant events, a berm might increase the amount of damage. If water spilled over the top of the berm, then there could be rapid flooding the protected area. A berm might hold flood water in-place, and prevent it from receding after a flood. Finally, there is the risk of having a berm washed away by flooding events (and deposited downstream as sediment).

### **Priority steps for flood mitigation - Outline by Steve Kaiser**

Steve Kaiser proposed a list of 18 action items to reduce flood damage at Alewife. The proposed action items appear below, accompanied by points made during their discussion:

A Fourth pump at Earhart Dam on the Mystic River. (As noted earlier, a fourth pump would, at the very least, improve reliability by providing redundancy.)

Improvements in pump design to reduce cavitation and allow greater pump efficiency and reliability. (Note: "reduce cavitation" means "prevent air from being introduced into the pumping system".)

Modification to the Craddock Dam in Medford Center to reduce the tendency for trash blockage.

Dredging at Winthrop Street Bridge and the MBTA railroad bridge near Boston Avenue to remove heavy sediments on the river bottom.

Dredging of Alewife Brook to remove four feet of accumulated sediment and allow better stream flow.

Completion of the reconstruction of the Mystic Lakes Dam.

Dredging of Blair Pond as planned.

Adoption of watershed-wide rules in all communities for no building permit to be granted without demonstrated neutrality in site runoff.

Require that any construction in the floodplain should be subject to review under Flood Plain Zoning protections in each community.

Specifically require that Cambridge's Contract 12 for drainage changes at Alewife be fully mitigated for flooding impacts.

Encourage all flood storage mitigation to be located outside the 100-year floodplain.

Install flap gates on all remaining CSO structures to reduce sanitary sewer inflow during floods.

Adopt programs to reduce paving and increase ground permeability.

Install rain barrels wherever feasible.

Install dry wells and redirect all sump pumps to dry wells, external drainage or stormwater pipes -- not to sanitary drains.

Active programs to encourage comprehensive programs for ground water replenishment.

Use of sand bags to protect individual properties or rows of properties (such as Discovery Park at Route 2, North Cambridge and East Arlington from Route 2 to Mass Avenue, East Arlington at Sunnyside). This would be a combined neighborhood/municipality program to jointly get supplies and install sandbags. (This point was inspired by the recent success of sandbagging in Fargo, North Dakota. However, there were concerns about the effectiveness of sandbagging in our area, where there can be little advance notice of a pending flood.)

Monitor all flood events and report the results publicly. The reports could and should come from all levels of government.

Add layers of concrete to basement floors, to provide additional building elevation. (This nineteenth point was added during discussion of the action items.)

## Other business

In past meetings, we have discussed ways of notifying community members about CSO events. There have been several CSO events in the past few months, and we felt it was worthwhile to discuss the effectiveness of the notification process. During recent CSO events, the City of Cambridge notified the MWRA and Arlington health department (among other parties). Additional notifications were sent via the tri-community mailing list, [tri\\_community@googlegroups.com](mailto:tri_community@googlegroups.com). The Mystic River Watershed Association (MyWRA) posts copies of CSO events to their website, <http://mysticriver.org/csos/>. MyWRA also maintains a mailing list for CSO event notifications.

The MWRA provided Roger Frymire with a storm-by-storm breakdown of CSO events. Roger will pass this information along to Clarissa, so that she can post it on the tri-community list (<http://groups.google.com/group/tri-community>).

There have been SSOs in the Mill Brook area during large storms. These tend to be fueled by storm water from Lexington and Bedford.

The meeting concluded at 7:10 pm.